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of accessory buds, with special reference to those developed vertically above or below the main axillary bud. The first method of arrangement, where the secondary buds appear above the first one developed, is termed *direct* superposition; the second, where they are found below the first bud, *inverted* superposition. Direct superposition is of rare occurrence both in herbaceous and woody plants, but is beautifully shown in the Tartarean Honeysuckle, where the larger principal bud is surmounted by three or four successively smaller ones; also in *Passiflora lutea*, *Coreopsis tinctoria* and *C. tripteris*. Inverted superposition is common in many ligneous and herbaceous plants. Usually the axillary bud first produced reaches a considerable size before a second one appears, and this may be ultimately separated from it for a considerable space by the elongation of the node. Mr. Foerste finds in *Fraxinus viridis*, *F. sambucifolia* and vigorous shoots of *F. Americana*, two buds in the same axil, the lower about one-half the size of the upper. *Cercis Canadensis* has two or three, the lowest often minute and covered by the petiole scar. The hickories have the upper of the two buds excessively developed, the lower remaining insignificant, except in *Carya microcarpa*, where the lower is of larger size. Many other plants are cited. Species in which the upper bud immediately develops into a branch while the lower remains in the bud state are rare in ligneous plants but abundant among herbs. Among those mentioned by Mr. Foerste are *Scrophularia nodosa*, *Gerardia purpurea*, and *Teucrium Canadense*. Later in the season some of these smaller buds may produce branches, as in *Ambrosia trifida*. The flowers and inflorescences of certain species, being homologous with branches, are sometimes superimposed to buds, as in *Delphinium Consolida*. In *Gleditschia triacanthos* the thorn is a specially developed superposed bud. In *Lilium bulbiferum* the bulblets are in inverted superposition to the peduncles.

Botanical Notes.

The Nival Flora of Switzerland: Oswald Heer. (Nouveaux Mem. Soc. Helvét. des Scie. Nat., xxix, part 1.) An interesting summary of the results reached by Prof. Heer in this work, may be found in *Nature*, Vol. xxxiii., pp. 206, 207. From this we learn that 337 species of flowering plants have been observed in Switzerland, at altitudes from 8,000 to 13,000 ft.; twelve of these occur above 12,000 ft. Monte Rosa has the richest Nival flora, but the majority of the species are widely distributed through the Alps. Prof. Heer concluded that about one-half of the plants of the Nival region came from the Arctic zone in the Glacial Period, by way of Scandinavia. The Endemic flora of the Nival region arose in the Alps, and a principal centre of its formation seems to have been the Monte Rosa chain.

Proceedings of the Club.

The regular monthly meeting was held Feb. 9th, at Columbia College, the President in the chair. After the reading of the minutes, Dr. Newberry gave an account of the fossil flora of the cretaceous clays of New Jersey, showing drawings and specimens of many of the species recently found.

It was resolved that Article XII of the Constitution be amended to read: "The Club shall consist of active, corresponding and honorary members," and that the following be added: "Honorary members may be chosen from botanists who have distinguished themselves by valuable original investigations, and shall be limited in number to five."

Dr. Gustavus Ramsperger was elected an active member, and Prof. J. T. Rothrock and Prof. Leo Lesquereux corresponding members.

Mr. Southwick presented the club with a specimen of *Rhus typhina* having beautifully pinnate-pinnatifid leaves.

P. H. Dudley exhibited branches of *Selaginella denticulata*, the lower portions of which had been killed by the growing mycelium of *Polyporus Rodmantii*, (?) saying that the fluid secreted by it was sufficient to penetrate the epidermis of the living branches, causing their death and ultimate decay. When the rootlets beyond the place of contact of the mycelium had not reached the ground, entire branches were destroyed. The mycelium secretes a fluid giving an acid reaction, which softens the fibres of wood, permitting the penetration of the delicate filaments of the mycelium. Wood so attacked, if allowed to dry, cracks and falls to pieces with the so-called "dry rot." Treating the mycelium of this fungus with molybdate of ammonia, abundant crystals of ammonium phosphomolybdate were obtained, showing the presence of phosphorus compounds, which were found to be characteristic of a number of fungi which induce decay in wood. Accompanying the above were vast numbers of bacteria, which also assisted in the decomposition.